

REMARKS

Applicant wishes to thank the Examiner for considering the present application. In the Office Action mailed May 31, 2002, claims 1-21 are pending in the application. Applicants respectfully request the Examiner for reconsideration.

Claims 1, 2, 4, 5, 7-13, 15, 16, and 18-20 stand rejected under 35 U.S.C. §102(b) as being anticipated by *Klein* (3,809,936).

The applicants have amended the present invention to clarify that the windings of the present invention are disposed in a plurality of the slots. That is, each of the windings is disposed in a plurality of the slots. The stator core has a plurality of slots that thus incorporate the windings therein. The windings extend between more than one of the slots as is best shown in Fig. 2.

The *Klein* reference is directed to a brushless generator that has wire coils 15, 16, 17, 18, 19, 20, and 21. Each of the coils are disposed in a single slot as is best shown in Figs. 1 and 8. No windings extending between different slots is illustrated, taught or suggested by the *Klein* reference. Such limitations are now in amended claims 1, 11, and 19. Claim 19 has further been amended to recite that the alternator contemplated therein is not a brushless machine. Therefore, a brush coupled to a rotor has been added to the independent claim as well.

Therefore, because each and every element of claims 1, 11, and 19 are not present in the *Klein* reference, applicants respectfully request the Examiner for reconsideration of this rejection.

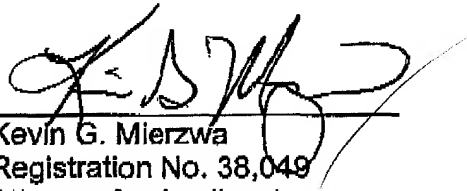
Claims 3, 6, 14, and 17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Klein* in view of *Auinger et al* (5,783,891).

The *Auinger* reference is also directed to a brushless synchronous machine. Applicants have amended the claims above to refer to a machine having a brush. Therefore, because no teaching or suggestion is provided for an electrical machine having a plurality of windings disposed in multiple slots in combination with a non-brushless machine, applicants respectfully request the Examiner for a reconsideration of this rejection as well.

In light of the above amendments and remarks, applicant submits that all rejections are now overcome. Applicant has added no new material to the application by these amendments. The application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments which would place the application in better condition for allowance, he is respectfully requested to call the undersigned attorney.

Please charge any fees required in the filing of this amendment to deposit account 50-0476.

Respectfully submitted,


Kevin G. Mierzwa
Registration No. 38,049
Attorney for Applicant

Date: 8/29/02

Artz & Artz, PC
28333 Telegraph Road, Suite 250
Southfield, Michigan 48034
(248) 223-9500

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AUG 29 2002

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (Amended) An electrical machine comprising:
a stator core having slots;
a rotor having a brush electrically coupled thereto;
a set of windings, each of said windings disposed within a plurality of slots,
said set of windings having $2N+1$ phases where N is an integer greater than 1.

11. (Amended) An alternator for an automotive vehicle comprising:
a housing;
a rotor rotatably disposed within said housing having a brush coupled thereto;
a stator core disposed within said housing adjacent to said rotor, said stator
core having a plurality of slots; and
a set of windings disposed within said slots so that each of said set of
windings extends into at least three of said plurality of slots, said set of windings
having $2N+1$ phases where N is an integer greater than 1.

19. (Amended) An alternator for an automotive vehicle comprising:
a housing;
a rotor rotatably disposed within said housing;
a brush electrically coupled to said rotor;
a stator core disposed within said housing adjacent to said rotor, said stator
core having slots;
a set of windings disposed within at least a plurality of said slots, said set of
windings having $2N+1$ phases where N is an integer greater than 1; and
a full wave rectifier circuit coupled to said set of windings, said rectifier circuit
comprising at least $2(2N+1)$ rectifying elements.